

DETAILED ACTION

Election/Restrictions

Newly submitted claims 17, 19, and 20 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: the claims are directed towards an embodiment of the acetabular implant where the centers of rotation of the insert and the kernel are offset from the axis of symmetry of the cup.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 17, 19, and 20 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 18 is rejected under 35 U.S.C. 102(b) as being anticipated by Marlow (US Pat. No. 5,989,294). Marlow discloses the following of claim 18: an acetabular implant for hip prosthesis, comprising: an insert (11) having a spherical internal cavity (Fig. 1); and a hemispherical kernel (13) having an internal cavity (23) adapted to cooperate with a femoral head for universal movement of the femoral head within said internal cavity of said kernel, said hemispherical kernel having universal movement within said insert (col. 5, line 50 through col. 6, line 6), and a center of rotation of said spherical internal cavity of said insert being spaced

apart from a center of rotation of said internal spherical cavity of said hemispherical kernel (Figs. 2-4).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marlow in view of McLean et al. (US Pub. No. 2004/0054418). Marlow discloses the following of the claimed invention: an acetabular implant for hip prosthesis, comprising an insert (11) having a spherical internal cavity, an upper exterior surface, and a lower exterior surface (Fig. 1); and a hemispherical kernel (13) having an internal spherical cavity (23) mounted in said insert (col. 4, lines 1-10), said hemispherical kernel having universal movement within said insert about two orthogonally intersecting lines a plane defined by said lower exterior surface of said insert, and said hemispherical kernel is a figure of rotation about an axis orthogonal to the plane (Figs. 2-4; col. 5, line 50 through col. 6, line 6). The center of rotation of said spherical internal cavity of said insert is spaced from the plane at a first height and a center of rotation of said internal spherical cavity of said hemispherical kernel is spaced the second plane at a second height, the first and second heights being different (Figs. 2-4). Marlow also discloses a cup (10) with an axis of symmetry (Figs. 1-4).

Marlow does not disclose the hemispherical kernel being thinner at its central region than its peripheral regions. McLean et al. teaches a hip implant system with this thickness change in

Figure 1 and paragraphs 0041-0043 for the purpose of better accommodating the other parts of the prosthesis. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have a hemispherical kernel thinner at its central region than its peripheral regions in order to better accommodate the other parts of the prosthesis.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Marlow in view of McLean et al. further in view of Tronzo (US Pat. No. 4,681,589). Marlow, as modified by McLean, teaches the invention substantially as claimed, however, they do not teach a hemispherical kernel whose thickness increases from the central region to the opening of the internal spherical cavity. Tronzo teaches an acetabular cup with a trapezoidal hemispherical kernel whose thickness increases from the central region to the opening of the internal spherical cavity in col. 3, line 61 through col. 4, line 28 for the purpose of compensating for bone shrinkage. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the hemispherical kernel of Marlow and McLean with a trapezoidal cup that has a thickness that increases from the central region to the opening of the internal spherical cavity in order to compensate for potential bone shrinkage.

Response to Arguments

Applicant's arguments with respect to claims 11, 12, and 16 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANN SCHILLINGER whose telephone number is (571)272-6652. The examiner can normally be reached on Mon. thru Fri. 9 a.m. to 4 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Isabella can be reached on (571) 272-4749. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. S./
Examiner, Art Unit 3774

/DAVID ISABELLA/
Supervisory Patent Examiner, Art Unit 3774